

REMARKS

This is in response to the Office Action that was mailed on October 12, 2006. Minor formal, non-narrowing amendments are made to claims 3-5, 7, and 8. No new matter is introduced by this Amendment. Claims 1 and 3-27 are pending in the application, with claims 10-27 standing withdrawn from consideration on their merits.

Claims 1-9 (actually, 1 and 3-9) stand rejected under 35 USC §102(b) as being anticipated by an article authored by Aaltonen et al. (hereinafter, "Aaltonen"). The rejection is respectfully traversed.

Aaltonen discloses a copolymer of ethylene and propylene with 10-undecen-1-ol. This polymer has a molecular weight distribution (Mw/Mn) of not more than 3. The polymer is prepared in the presence of various metallocene catalysts. However, Aaltonen fails to teach (or suggest) a polar-group-containing olefin copolymer as defined in present independent claims 1, 6, and 9. Considering the Aaltonen polymer in terms of Applicant's claim 1, for instance, in Applicant's formula (3), Aaltonen's polymer would have an R³ variable of 9 carbon atoms.

In contrast, Applicant's claim 1 requires that R³ has at least 11 carbon atoms. It is clear, therefore, that Applicant's invention is not anticipated by the Aaltonen disclosure.

Moreover, in lines 21-24 on page 312 of the specification, Applicant teaches that it is significant in the present invention to have a hydrocarbon group of 11 or more carbon atoms as R³ in Applicant's claim 1. Specifically, the specification teaches that "If X is a hydroxyl group and R¹ in the formula (3) is a straight-chain or branched aliphatic hydrocarbon group of 11 or more carbon

atoms, an adhesive resin having particularly excellent adhesion properties can be obtained."

Objects of the present invention include providing a polar group-containing olefin copolymer having excellent adhesion properties to metals or polar resins and excellent compatibility therewith, a process for preparing the copolymer, a thermoplastic resin composition containing the copolymer, and uses thereof. Specification, page 8, lines 19-24. All of these objects are accomplished, for the first time, by using a novel polar group-containing olefin copolymer as defined in claim 1.

The rejection of record is made under 35 USC §102(b), and accordingly Applicant has obviated the rejection by pointing out a significant element of his claims that is not found in the prior art relied upon to reject the claims. However, even though no showing of unexpected differences in results is necessary in this case, Applicant presents herewith the Declaration under 37 CFR 1.132 of Junji Saito. The Saito Declaration establishes that a copolymer of the present invention, in which R^3 has 11 carbons, is vastly superior in adhesion strength to a similar copolymer, in which R^3 has only 9 carbons. Specifically, adhesion strength of the copolymer of Applicant's Example 8 was compared to that of a copolymer of propylene with undecen-1-ol (R^3) representative of conventional technology, referred to in the Declaration under the heading "Additional Comparative Example". The adhesion strength of the copolymer representative of conventional technology was 2 kgf/15 mm. The adhesion strength of the copolymer of Example 8 was such that it could not be determined quantitatively by the testing method used due to destruction of the adhered sample. Thus, even if the Examiner were to establish a *prima facie* case of obviousness based upon the Aaltonen article, obviousness would be rebutted by the Saito showing

that a copolymer of the present invention, in which R³ has 11 carbons, is vastly superior in adhesion strength to a similar copolymer, in which R³ has only 9 carbons. It is reiterated, however, that the rejection of record is a rejection under 35 USC §102(b).


Additionally, it is pointed out that the polar group-containing olefin copolymer of the present invention solves the problem of non-uniform molecular weight. The present copolymer provides a satisfactory orientation of polar groups towards the interface between the copolymer and polar materials, as well as excellent adhesion properties to polar materials and compatibility therewith. The Aaltonen et al. article neither teaches nor suggests these features.

Accordingly, the presently claimed invention is both novel and unobvious. The Examiner is earnestly requested to withdraw the rejection of record under 35 USC §102(b), and to pass this application to Issue.

If there are any questions concerning the present application, the Examiner is respectfully requested to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Marc S. Weiner, #32,181

MSW/RG
1155-0274P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000